

Atlantic Richfield Company

Jack Oman
Project Manager

4 Centerpointe Drive
LaPalma, CA. 90623-1066
(714) 228-6774 office
(714) 670-5195 fax
jack.oman@bp.com

October 7, 2011

CERTIFIED – RETURN RECEIPT REQUESTED

Ms. Jere Johnson
Remedial Project Manager
U.S. Environmental Protection Agency Region 9
75 Hawthorne Street, SFD-9-1
San Francisco, CA 94105

Subject: September 2011 Monthly Report, Yerington Mine Site, Lyon County, Nevada: Administrative Order for Remedial Investigation and Feasibility Study (RI/FS), CERCLA Docket No. 9-2007-0005; Administrative Order on Consent, CERCLA Docket No. 09-2009-0010

Dear Ms. Johnson:

Pursuant to the above referenced orders issued by the U.S. Environmental Protection Agency - Region 9 (EPA), Atlantic Richfield Company (ARC) has prepared this September 2011 monthly report for RI/FS and removal action activities at the Yerington Mine Site (Site).

September 2011 Activities

Site Security and O&M Activities

- Continued routine Site O&M, security and bird deterrent activities. Security cameras at various locations (Main and Arimetco gates, entrances to buildings) indicated no activity of concern. The replacement of damaged "Danger - Keep Out" signs on perimeter fencing was completed.
- The BirdGard® towers remained shut down due to dry conditions in the evaporation ponds, and will re-activated when water is observed in the ponds or when rain events are expected. Three "Wind Dancers" remained active and two "Wind Dancer" tubes were replaced. Additional bird deterrent flags were ordered for use around the FMS Evaporation and VLT Ponds. "Wind Dancers" and flags will be rotated approximately every two weeks, or as field observations dictate, to lessen the possibility of birds becoming habituated to the flags. Site personnel attended bird identification and observation refresher training on September 28.
- Water was absent from the Pumpback Well System (PWS) Evaporation Pond cells: North Cell = 0.0 feet; Middle Cell = 0.00 feet; South Cell 0.00 feet.
- Arimetco Heap Leach Pad (HLP) Fluid Management System (FMS) pond levels: Phase 1 Pond = 2.64 feet; FMS Evaporation Pond = 7.36 feet; VLT Pond = 4.43 feet; Slot 2 Pond = 11.94 feet. Approximately 60,726 gallons of solution were transferred from the VLT Sediment Pond (VLTSP) to the FMS Evaporation Pond. Approximately 145,337 and 149,757 gallons, respectively, were transferred from the Slot Pond to the FMS Evaporation Pond and VLT Pond to maximize evaporation potential prior to the 2011-2012 precipitation season, as discussed with EPA in a conference call on September 22. Prior to the transfers, the Slot Pond pumping and piping systems were inspected and tested. Approximately 34,005 gallons of solution were pumped from the leak detectors, and a total of approximately 353,581 gallons of solution has been pumped from the leak detectors since January 1, 2011. Drain-down from the Arimetco Phase IV Slot Pond and VLT Pond averaged 3.0 and 4.2 gpm, respectively. Average Phase III HLP drain-down rates are not reported due to instrument failure for most of September (see attached data).

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September 2011 Activities - Continued

Site Security and O&M Activities - Continued

- During the transfer of fluids to the VLT Pond, the weir that measures flow into the VLT Pond was damaged (the weir is supported by sacks of diatomaceous earth, and its design allows for this type of damage during high flow events).
- "Emergency Shut-Off" signs were acquired for placement on pump electrical boxes on the Site.
- Submitted a Technical Memorandum dated September 12, 2011 to EPA and the Nevada Division of Environmental Protection (NDEP) that summarizes the water balance for the Arimetco HLPs for the period from August 1, 2010 through July 31, 2011, and describes short-term alternatives for the management of drain-down fluids during the 2011-2012 precipitation season.

Other Site Activities

- Singatse Peak Services (SPS) personnel worked in their core storage area, initiated modifications to the former truck shop and electric shop for future needs, and continued drilling activities in the area of the open pit.
- B.V. Nevada personnel continued with demolition and salvage activities
- Tri State Surveying completed the ground control and aerial flight elements for the Site mapping project, and has calculated and confirmed the aerotriangulation portion of the survey.
- Continued Site wildlife surveys and wildlife observation reports.
- Tom Dunkelman (EPA) was on Site on September 13, 27 and 28 to observe B.V. Nevada and dust suppression activities.

Site Characterization Activities

- Site-wide monthly groundwater elevation measurements were obtained September 26-29, including Arimetco (OU-8) monitor wells.
- A pit lake water elevation of 4225.99 feet amsl was recorded on September 26, 2011 from the pressure transducer, an increase of 0.035 feet since August 31, 2011. The pit lake elevation has risen 4.4 feet since September 26, 2010.
- Continued meteorological monitoring at the AM-6 location including wind speed/direction, temperature, relative humidity, barometric pressure, precipitation and solar radiation.
- One residence (DW-185) was added to the domestic well sampling program. Receipt of a signed access agreement from owner of DW-77 is still pending.
- No changes to the Bottled Water Program occurred in September.
- Initiated the compilation of field and laboratory data for the 3Q 2011 Groundwater and Domestic Well Monitoring Reports.
- Received EPA comments on September 29, 2011 on the 2010 Annual Groundwater Monitoring Report (GMR) dated April 15, 2011, the 1Q 2011 GMR dated July 1, 2011, and the 2Q 2011 GMR dated August 26, 2011, and initiated a review of these comments.
- Conducted the 3Q 2011 domestic well monitoring event the week of September 12, including the collection of samples for dissolved analyses.
- Submitted an Addendum on August 29 that addresses additional monitor well locations to be installed as part of the On-Site Monitor Well Installation Work Plan - Revision 1.
- Continued field and laboratory investigations associated with the On-Site Monitor Well Installation Work Plan with four drill rigs on Site. The following wells were constructed: PLMW-1B, PLMW-5B, PA-MW-2I, PA-MW-2B, PA-MW-4B, PA-MW-7B, B/W-71B, B/W-73B, B/W-74B, B/W-75S, B/W-75B and WRA3-1B. Zonal samples were collected at B/W-74, B/W-75, B/W-76, PA-MW-4, and PA-MW-7 (see the attached progress summary).
- Received EPA approval on September 26 for the revised Aquifer Test Work Plan dated September 21, 2011. Continued preparations for the implementation of the Work Plan.
- Submitted the Background Groundwater Quality Assessment dated September 28.

September 2011 Activities - Continued

Site Characterization Activities - Continued

- Received EPA comments dated September 28, 2011 on the Process Areas (OU3) Sub-Surface Utility and Dry Well Investigation Results for Phase I Activities - Revision 1 (Geophysical Tech Memo) dated July 22, 2011, and initiated a review of these comments.
- Initiated the preparation of comments on the Public Review Draft Feasibility Study (FS) for Arimetco Facilities Operable Unit 8 Heap Leach Pads and Drain-Down Fluids dated July 2011.
- Attended a public meeting on September 15 where EPA presented the draft FS elements and discussed ongoing Site characterization activities.
- Continued preparations for the laboratory phase of the aquifer solids testing program including an evaluation of methods to separate <200 mesh materials and communications with EPA regarding aquifer solids test methods.
- Continued the preparation of responses to Yerington Paiute Tribe (YPT) comments dated August 4, 2011 on the Conceptual Site Model - Revision 4.
- Continued routine database management activities.

AOC Removal Actions

- Re-started the Dust Suppression Work Plan (DSP) for the W-3 Dump Leach Surge Pond and the Unlined and Lined Evaporation Ponds on September 16.
- Continued the compilation of data for inclusion in the Sub-Area A Sub-Surface Investigation Data Summary Report, performed as part of the Sub-Area A interim cover removal action.

Planned October/November 2011 Activities

Site Security and O&M Activities

- Continue routine Site O&M, security and bird deterrent activities. Upon delivery bird deterrent flags will be placed around the Arimetco FMS Evaporation and VLT Ponds.
- The FMS Evaporation Pond and VLT Pond weirs will be repaired in early October once the fluid transfers from the Slot Pond are completed. The FMS Evaporation Pond flow meter will be repaired and stand-by replacement equipment will be ordered to limit flow meter down-time.

Other Site Activities

- Continue aerial survey-based mapping.
- Continue to review the *Public Review Draft Feasibility Study (FS) for Arimetco Facilities Operable Unit 8 Heap Leach Pads and Drain-Down Fluids* dated July 2011, and initiate the preparation of comments to the draft FS (due by October 31).
- Continue Site wildlife surveys, maintenance of wildlife observation data and preparation of wildlife observation reports.

Site Characterization Activities

- Continue groundwater elevation and pit lake level measurements, and meteorological monitoring.
- Continue the Bottled Water Program.
- Conduct the 4Q 2011 groundwater monitoring and domestic well monitoring event.
- Discuss with EPA the GMR comments received on September 29, 2011 and submit responses to EPA comments. Compile 3Q monitoring data for inclusion in the 3Q 2011 GMR and the 3Q 2011 domestic well monitoring reports.
- Pursue access agreements with SPS and YPT to allow ARC to access their monitor wells.
- Continue planning for, and complete, all field activities associated with the revised Aquifer Test Work Plan.
- Continue the 2011 On-Site Monitor Well installation program.
- Continue the aquifer solids testing program.

Planned October/November 2011 Activities – Continued

Site Characterization Activities - Continued

- Discuss with EPA and CH2M Hill the comments received on September 28, 2011 on the Process Areas Geophysical Tech Memo, and submit responses to EPA comments.
- Pending EPA approval of the Phase 2 scope of work, initiate this next phase of geophysical surveys and related sub-surface utility investigations in the Process Areas. When available, review EPA's draft Process Areas (OU-3) RI Work Plan.
- When available, review EPA's draft data quality objectives for the Wabuska Drain (OU-7) RI Work Plan.

AOC Removal Actions

- Complete the polymer application to the Unlined and Lined Evaporation Ponds, pursuant to the revised DSP.
- Submit the Sub-Area A Sub-Surface Investigation Data Summary Report to EPA.

Please contact me at (714) 228-6774 or via e-mail at jack.oman@bp.com if you have any questions or comments about the September 2011 monthly report.

Sincerely,



Jack Oman
Project Manager

Attachments

cc: Dave Seter, EPA – via electronic mail
Roberta Blank, EPA – via electronic mail
Andrew Helmlinger, EPA – via electronic mail
Tom Dunkelman, EPA – via electronic mail
Greg Lovato, NDEP – via electronic mail
Tom Olsen, BLM – via electronic mail
Dan Newell, City of Yerington – via electronic mail
Phyllis Hunewill – via electronic mail
Virgil Arellano, Lyon County Commissioner – via electronic mail
Richard Faber, Lyon County Facilities Engineering – via electronic mail
Tom Grady, Nevada State Assembly – via electronic mail
Justin Whitesides, YPT – via electronic mail
Chairwoman Howard, YPT – via electronic mail
Dietrick McGinnis, McGinnis and Associates – via electronic mail
Tom Bowden, Ridolfi, Inc. – via electronic mail
Chairwoman McFalls, WRPT – via electronic mail
Vicky Moyle, WRPT – via electronic mail
Ron Halsey, Atlantic Richfield Company – via electronic mail
James Lucari, Atlantic Richfield Company – via electronic mail
Marc Ferries, Atlantic Richfield Company – via electronic mail
John Batchelder, EnviroSolve – via electronic mail
Jim Chatham, Atlantic Richfield Company – via electronic mail
Rich Curley, Curley and Associates, LLC – via electronic mail
Bill Duffy, Davis Graham & Stubbs – via electronic mail

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Tom Patton, Singatse Peak Services, LLP – via electronic mail
George Eliopulos, Singatse Peak Services, LLP – via electronic mail
Taurus Massey, Singatse Peak Services, LLP – via electronic mail
David Peri, Peri and Sons – via electronic mail
Ken Greene, CH2M Hill – via electronic mail
Victor Early, Tetra Tech – via electronic mail
Colin Lee, Tetra Tech – via electronic mail
Peggy Pauly, YCAG – via electronic mail
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